UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,334	01/29/2004	Robert Lee Angell	END20030132US1	6534

37945 7590 12/26/2008

DUKE W. YEE
YEE AND ASSOCIATES, P.C.
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER	
VEZERIS, JAMES A	
ART UNIT	**PAPER NUMBER**
3693	

NOTIFICATION DATE	DELIVERY MODE
12/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptonotifs@yeeiplaw.com

Office Action Summary	Application No.	Applicant(s)	
	10/768,334	ANGELL, ROBERT LEE	
	Examiner	Art Unit	
	JAMES A. VEZERIS	3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/30/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,7-15 and 19-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-15 and 19-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Pre-Examination Formalities

1. The cancellation of claims 4-6 and 16-18 are acknowledged.

2. Claims 1-3, 7-15, and 19-25 are currently pending.

Response to Applicant's Arguments

3. Applicant's arguments with respect to claims 1-3, 7-15, and 19-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections- 35 U.S.C. 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-3 and 7-12 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In order for a method to be considered a "process" under §101, a claimed process must either: (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials). *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972). If neither of these requirements is met by the claim, the method is not a patent eligible process under §101 and is non-statutory subject matter.

Claim Rejections- 35 U.S.C. 112 1st Paragraph

6. Claim 25 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 25 uses "means for" language in conjunction with an apparatus. In the specification there is no support, in the form of an algorithm, to enable one in the art to recreate the invention.

Claim Rejections- 35 U.S.C. 112 2nd Paragraph

7. Claims 1-3, 7-15, and 19-25 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: In the independent claims it is unclear if the updated data modifies the historical or if the updated data replaces the historical data and the method simply repeats what was done to the historical data. Examiner is reviewing the claims as if the updated data completely replaces the historical data.

Claim Objections

8. Claims 13-24 are objected to because of the following informalities: Examiner notes the applicant is attempting to claim a computer product on a computer readable medium, but believes the language used in the claims read more as computer code per

se. Applicant should consult Patent 5,710,578 claim 10 for guidance on how to properly claim a computer product on computer readable medium. Examiner specifically would like to point out that the “instructions” prior to each paragraph reads like computer code. Appropriate correction is required.

Claim Rejections- 35 U.S.C. 103(a)

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 1-3, 7-9, 13-15, 19-21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 7,353,214 to Yamanishi et al. (Hereinafter "Yam") in view of US Patent 7,333,923 to Yamanishi et al. (Hereinafter "Yamanishi”)

Regarding Claims 1, 13, and 25.

Yam teaches:

receiving a set of historical data; (See Col 1 Lines 21-29)

identifying a plurality of control points in the historical data, further comprising:

identifying a plurality of outliers in a distribution of the historical data; (See Col. 2 Lines 38-48)

validating the plurality of outliers to distinguish between a first set of outliers and a second set of outliers, wherein the first set of outliers are classified as valid outliers and the second set of outliers are classified as invalid outliers,

and wherein the first set of outliers are identified as the plurality of control points; (See Col. 2 Lines 38-48)

building at least one data model based on the plurality of control points, further comprising:

generating a fence that passes through the plurality of control points to define a boundary between data points, wherein data points within the fence represent acceptable behavior and data points outside the fence represent fraudulent behavior;

receiving a set of updated data;

identifying one or more new control points based on the updated data, further comprising:

identifying an additional plurality of outliers in a distribution of the updated data; and

validating the additional plurality of outliers to distinguish between a third set of outliers and a fourth set of outliers, wherein the third set of outliers are classified as valid outliers and the fourth set of outliers are classified as invalid outliers, and wherein the third set of outliers are identified as the one or more new control points;

adjusting the at least one data model to form an adjusted data model, within the at least one data model, based on the one or more new control points, wherein the at least one data model is refined for a plurality of iterations; and (Col. 2-3 Lines 61-27)

Yam fails to teach verifying a transaction based on the adjusted data model.

Yamanishi teaches verifying a transaction based on the adjusted data model. (See Col. 1 Lines 18-25)

It would be obvious to one skilled in the art at the time of the invention to combine Yam and Yamanishi to utilize the verification of Yamanishi in Yam to provide a user to use fraud detection in verifying transaction are legitimate or not. It is within the capabilities of one of ordinary skill in the art to implement the verification of Yamanishi in Yam.

Examiner notes that the "fence" (the number given for determining a valid or invalid outlier) passes through a plurality of control points.

Regarding Claims 2 and 14.

Yam fails to further teach wherein the historical data includes at least one of demographic data, psychographic data, transactional data, and environmental data.

Yamanishi teaches wherein the historical data includes at least one of demographic data, psychographic data, transactional data, and environmental data. (See Description of Related Art)

It would be obvious to one skilled in the art at the time of the invention to combine Yam and Yamanishi to utilize the verification of Yamanishi, through specific sets of data, in Yam to provide a user to use fraud detection in verifying transaction are legitimate or not. It is within the capabilities of one of ordinary skill in the art to implement the verification, through specific sets of data, of Yamanishi in Yam.

Regarding Claims 3 and 15.

Yam teaches wherein the plurality of outliers in the distribution of the historical

data are identified by analyzing the historical data using statistical modeling, outlier analysis, and data mining algorithms. (See Summary of the Invention)

Regarding Claims 7 and 19.

Yam fails to further teach the updated data includes at least one of demographic data, psychographic data, transactional data, and environmental data.

Yamanishi teaches the updated data includes at least one of demographic data, psychographic data, transactional data, and environmental data. (See Description of Related Art)

It would be obvious to one skilled in the art at the time of the invention to combine Yam and Yamanishi to utilize the verification of Yamanishi, through specific sets of data, in Yam to provide a user to use fraud detection in verifying transaction are legitimate or not. It is within the capabilities of one of ordinary skill in the art to implement the verification, through specific sets of data, of Yamanishi in Yam.

Regarding Claims 8 and 20.

Yam further teaches wherein adjusting the at least one data model includes:

adding the one or more new control points to the at least one data model; and

generating an adjusted fence that passes through the plurality of control points and the one or more new control points to define a boundary between data points, and wherein data points within the adjusted fence represent acceptable behavior and data points outside the adjusted fence represent fraudulent behavior. (Col. 2-3 Lines 61-27)

Regarding Claims 9 and 21.

Yam further teaches, wherein adjusting the at least one data model includes:

changing one or more of the plurality of control points to the one or more new control points in the at least one data model; and

generating an adjusted fence that passes through the plurality of control points to define a boundary between data points, and wherein data points within the adjusted fence represent acceptable behavior and data points outside the adjusted fence represent fraudulent behavior. (Col. 2-3 Lines 61-27)

11. Claims 10-12 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yam in view of Yamanishi in further view of US Patent 6,047,221 to Piche et al. (Hereinafter "Piche")

Regarding Claims 10 and 22.

Yam fails to further teach:

determining whether the adjusted data model, within the at least one data model, reached a steady state;

converting the adjusted data model to a static model in response to a determination that the adjusted data model reached the steady state; and

refining the at least one data model for an iteration of the plurality of iterations in response to a determination that the adjusted data model has not reached the steady state.

Piche teaches determining whether the adjusted data model, within the at least one data model, reached a steady state;

converting the adjusted data model to a static model in response to a

determination that the adjusted data model reached the steady state; and

refining the at least one data model for an iteration of the plurality of iterations in response to a determination that the adjusted data model has not reached the steady state.

It would be obvious to one skilled in the art to combine Yam and Piche to covert a model to steady state, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 11 and 23.

Yam fails to further teach determining whether the adjusted data model reached a steady state includes:

determining a difference between the adjusted data model and a previous data model, within the at least one data model, to form a delta value; and

determining whether the delta value is less than a threshold.

Piche teaches determining whether the adjusted data model reached a steady state includes:

determining a difference between the adjusted data model and a previous data model, within the at least one data model, to form a delta value; and

determining whether the delta value is less than a threshold.

It would be obvious to one skilled in the art to combine Yam and Piche to covert a model to steady state, since the claimed invention is merely a combination of old

elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Regarding Claims 12 and 24.

Yam fails to further teach the threshold is two standard deviations from a mean within a normal distribution of the data.

Piche teaches the threshold is two standard deviations from a mean within a normal distribution of the data.

It would be obvious to one skilled in the art to combine Yam and Piche to covert a model to steady state, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. VEZERIS whose telephone number is (571)270-1580. The examiner can normally be reached on Monday-alt. Fridays 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A. Kramer/
Supervisory Patent Examiner, Art Unit 3693

/JAMES A VEZERIS/
Examiner, Art Unit 3693

12/19/2008